

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **09-244045**

(43)Date of publication of application : **19.09.1997**

(51)Int.Cl. **G02F 1/1343**
G02F 1/136

(21)Application number : **08-056063** (71)Applicant : **CANON INC**

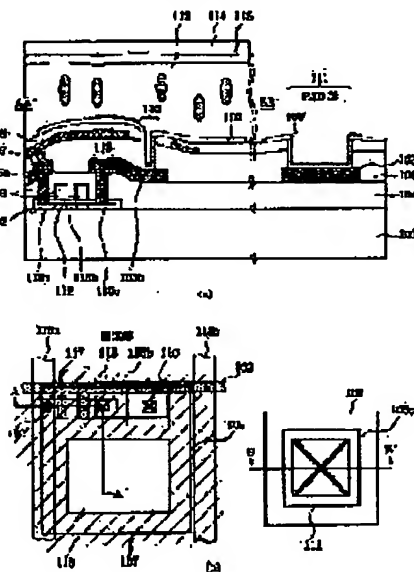
(22)Date of filing : **13.03.1996** (72)Inventor : **INOUE SHUNSUKE**
OKITA AKIRA

(54) LIQUID CRYSTAL DISPLAY DEVICE AND ITS PRODUCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To make it possible to increase a contrast, to decrease the variations of many pixels and to reduce a manufacturing cost by forming the same electrode layer as the pixel electrodes of an image display section on the bonding pads of peripheral circuits as well.

SOLUTION: The pixel electrodes 109 are disposed not only in the pixel parts but on the bonding pads 105 as well and are electrically connected via openings 111 on the pads. ITO films are most frequently used as the pixel electrodes 109. Al-Si films are adequate, for example, for the drain electrodes 105b of TFTs and the bonding pads 105c. The improvement of the ohmic property with the ITO films is executed by depositing films of, for example, titanium nitride, titanium, etc., on the Al-Si surfaces. Hydrogenation is executable after all of the stages to induce the damage of dry etching, etc., are ended in this stage and, therefore, the recovery and removal of the damage are embodied with good reproducibility. Since through-holes and the openings 111 of the pads are executable by the same stage, the production stages are simplified.



BEST AVAILABLE COPY

LEGAL STATUS

[Date of request for examination] 13.11.1998

[Date of sending the examiner's decision of rejection] 20.06.2000

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

BEST AVAILABLE COPY

일본공개특허공보 평09-244045호(1997.09.19) 1부.

[첨부그림 1]

(15)日本国特許庁(JP)

(12)公開特許公報(A)

(11)特許出願公開番号

特開平9-244045

(43)公開日 平成9年(1997)9月18日

(51)Int.Cl. ⁶	発明の種別	特許請求の範囲	F1	特許請求の範囲
G02F 1/1345			G02F 1/1345	
1/138	500		1/138	500

発明の名称 半導体 液晶表示装置の構造 OL (全 6 頁)

(21)出願番号 特願平9-55068

(22)出願日 平成9年(1997)3月13日

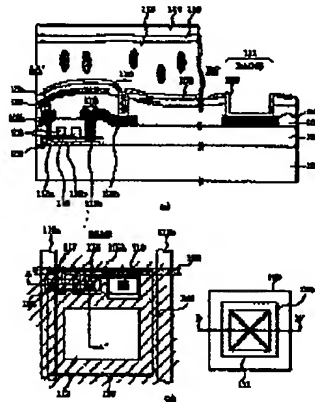
(71)出願人 000001007
キヤノン株式会社
東京都大田区下丸子3丁目30番2号
(72)発明者 井上 俊雄
東京都大田区下丸子3丁目30番2号キヤノ
ン株式会社内
(73)発明者 仲田 孝
東京都大田区下丸子3丁目30番2号キヤノ
ン株式会社内
(74)代理人 弁護士 丸島 新一

(54)【発明の名称】 液晶表示装置およびその製造方法

(57)【要約】

【課題】 液晶表示装置のスイッチング素子の特性を向上し、さらに製造コストを小さくする。

【解決手段】 スwitchング素子11を設けた面状表示部と、前記面状表示部に電圧を印加する電極111とを備えた一方の基板101と、前記一方の基板101に形成した透明電極110を備えた他方の基板114と、前記一方の基板101と前記他方の基板114で挟持した液晶とを有する液晶表示装置の製造方法において、前記面状表示部の透明電極109と同一の電極層109を、前記電極111のボンディングパッド103aにも形成する。



6-1

6-1

BEST AVAILABLE COPY